Joint Service
Depot Maintenance Interservicing

Prepared by: **Joint Depot Maintenance Activities Group**
Depot Maintenance Analysis Division

Depot Maintenance Interservicing (DMI) Analysis Summary Report for Fiscal Year 2001

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FORWARD

This report is published annually to provide an overview of Depot Maintenance Interservice (DMI) study activity for the preceding fiscal year.

A total of 37 DMI studies were initiated during fiscal year 2001. There were 25 new start system introductions. Also, an additional 12 reviews were initiated to document the transfer of Ground Communications-Electronics (GCE) systems from the Sacramento Air Logistics Center, McClellan Air Force Base, CA, to the Tobyhanna Army Depot, Tobyhanna, PA. The GCE workload transfers resulted from Base Closure and Realignment Commission (BRAC) 1995 decisions.

The level of DMI study completions in fiscal year 2001 remained at a high level with 55 completed. Of the 55 DMI studies completed, 41 were new start DMI studies and 14 were BRAC GCE reviews.

Significant among the study completions during fiscal year 2001 was the AN/ARR-88(V) Modified Miniature Receive Terminal, used by the Air Force and Navy. As a result of the DMI study, JDMAG recommended assignment of the depot-level workload to an Air Force facility with an associated potential cost avoidance for the Navy of $8,925,000.

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CONTENTS

OVERVIEW OF THE YEAR

The 37 Depot Maintenance Interservice (DMI) studies initiated during fiscal year 2001 are shown in Table 1 by the Service submitting the study and by work breakdown structure (WBS). Cumulative DMI submissions since 1978 are shown in Table 2, also by the Service submitting the study and by WBS.

Fifty-five studies were completed in fiscal year 2001. Of these, the study on the AN/ARR-88(V) Modified Miniature Receive Terminal resulted in identification of $8,925,000 potential cost avoidance for the Navy. Cost avoidances are described as "potential" because they will only occur when the interservice action is implemented for each item.

Table 3 shows, year-by-year since 1978, DMI study introductions (initiations), DMI study decisions (completions) and cost avoidance identified, as well as totals for fiscal years 1978-2001.

TABLE 1
DMI STUDIES FY01 INTRODUCTIONS

Equipment WBS	Category	USA	USN	USAF	USMC	Total
100	Aircraft	1	4	14	0	19
200	Missiles	0	0	0	0	0
300	Ships	0	1	0	0	1
400	Combat Vehicles	1	0	2	0	3
500	Automotive	0	0	0	0	0
600	Construction	0	0	0	0	0
700	Electronics & Communications	0	0	11	0	11
800	Ordnance, Weapons & Munitions	0	0	0	0	0
900	General Purpose	1	1	1	0	3
	Totals	3	6	28*	0	37

* 12 BRAC GCE reassignments

TABLE 2
DMI STUDIES FY78-01 INTRODUCTIONS

Equipment WBS	Category	USA	USN	USAF	USMC	Total
100	Aircraft	119	249	382	0	750
200	Missiles	41	46	52	1	140
300	Ships	7	115	1	0	123
400	Combat Vehicles	52	2	3	4	61
500	Automotive	13	0	1	7	21
600	Construction	7	0	0	0	7
700	Electronics & Communications	238	91	293	48	670
800	Ordnance, Weapons & Munitions	19	8	2	3	32
900	General Purpose	21	6	8	3	38
	Totals	517	517	742	66	1,842

TABLE 3
DMI STUDIES
FY1978-2001 INTRODUCTIONS-DECISIONS-POTENTIAL COST AVOIDANCE
($MILLIONS PER YEAR)

	FY78	FY79	FY80	FY81	FY82
INTRODUCTIONS	134	55	98	53	62
DECISIONS	14	70	76	60	43
COST AVOIDANCE	2.6	52.6	49.2	34.0	15.0

	FY83	FY84	FY85	FY86	FY87
INTRODUCTIONS	224	143	103	87	84
DECISIONS	70	80	70	232	101
COST AVOIDANCE	13.0	24.5	59.4	29.3	35.3

	FY88	FY89	FY90	FY91	FY92
INTRODUCTIONS	85	96	74	93	75
DECISIONS	102	107	87	65	83
COST AVOIDANCE	131.3	2.4	48.2	11.0	9.4

	FY93	FY94	FY95	FY96	FY97
INTRODUCTIONS	28	45	54	32	25
DECISIONS	62	61	49	54	45
COST AVOIDANCE	29.5	20.2	6.8	18.2	0.4

	FY98	FY99	FY00	FY01	TOT
INTRODUCTIONS	25	48	82	37	1842
DECISIONS	38	71	85	55	1780
COST AVOIDANCE	0	0	0	8.9	601.7

F-14D Systems and Subsystems

The Navy introduced the F-14D aircraft for DMI study. The F-14D aircraft is a modification of the Navy's F-14A aircraft. The Navy is the sole user of the F-14D and currently has an inventory of 45 aircraft. The F-14D is tentatively planned to go out of service by fiscal year 2008. The Navy determined that a core depot maintenance capability was required for the F-14D aircraft and had assigned Scheduled Depot Level Maintenance (SDLM) for the aircraft to the Naval Air Depot (NADEP), Jacksonville, FL. F-14D systems, subsystems and equipment were assigned to 15 individual studies. One study was completed in a previous year, the following eight studies were completed during fiscal year 2001 and four studies remain to be completed.

F-14D Aircraft Airframe and Fuselage Components (89-0007-01)

A JDMAG summary DMI study recommended that the F-14D Aircraft Airframe and Fuselage Components be assigned to the NADEP Jacksonville. The joint Service decision was announced 5 September 2001.

F-14D Aircraft Landing Gear Components (89-0007-02)

A JDMAG summary DMI study recommended that the F-14D Aircraft Landing Gear Components be assigned to the NADEP Jacksonville. The joint Service decision was announced 10 September 2001.

F-14D Aircraft Flight Control System Components (89-0007-03)

A JDMAG summary DMI study recommended that the F-14D Aircraft Flight Control System Components be assigned to the NADEP Jacksonville. The joint Service decision was announced 29 August 2001.

F-14D Aircraft Power Plant Installation System Components (89-0007-04)

A JDMAG summary DMI study recommended that the F-14D Aircraft Power Plant Installation System Components be assigned to the NADEP Jacksonville except for one item to be assigned to NADEP North Island, CA, based on existing capabilities. The joint Service decision was announced 29 August 2001.

F-14D Environmental System Components (890007-05)

A JDMAG summary DMI study recommended that the F-14D Environmental System Components be assigned to the NADEP Jacksonville with two items to continue to be supported under contact. The joint Service decision was announced 26 September 2001.

F-14D Aircraft Hydraulic/Pneumatic Components (89-0007-07)

A JDMAG summary DMI study recommended that the F-14D Aircraft Hydraulic/Pneumatic Components be assigned to the NADEP Jacksonville. The joint Service decision was announced 29 August 2001.

F-14D Aircraft Oxygen System Components (89-0007-09)

A JDMAG summary DMI study recommended the GCY-24/A Liquid Oxygen Converter be assigned to the Oklahoma City Air Logistics Center (OC-ALC), Tinker Air Force Base, OK, based on existing capability and interservice arrangements. The joint Service decision was announced 29 August 2001.

F-14D Aircraft Flight Reference/Guidance Components (89-0007-12)

A JDMAG summary DMI study recommended that the F-14D Aircraft Flight Reference/Guidance Components be assigned to the NADEP Jacksonville. The joint Service decision was announced 29 August 2001.

F-14D Aircraft In-Flight Test Equipment (89-0007-13)

A JDMAG summary DMI study of the F-14D In-Flight Test Equipment found that the item was a consumable item and not depot repairable. Termination of the study without depot source of repair assignment was announced on 28 June 2001.

F-14D Aircraft Miscellaneous Electronics (89-0007-14)

A JDMAG summary DMI study of the F-14D Aircraft Miscellaneous Electronics revealed that all depot repairable component were contained in other F-14D studies. Termination of the study without depot source of repair assignment was announced on 28 June 2001.

EP-3E ARIES II Electronic Support Measures (91-0003-01 and 02)

The Navy introduced the EP-3E ARIES II Electronic Support Measures (ESM) for DMI study. The EP-3E ARIES II ESM provides an improved passive airborne reconnaissance system to detect, classify, record, display, and disseminate data on selected radio frequency (RF) signals. The system also standardizes the configuration of EP-3 ESM. The Navy is the only user of the EP-3E aircraft with an inventory of 12. Two summary DMI studies recommended assignment of the depot maintenance for the EP-3E ESM to the three sources planned by the Navy: Naval Air Depot, Jacksonville, FL; Naval Surface Warfare Center, Crane Division, Crane, IN; and commercial support. The joint Service decision was announced 28 June 2001.

AN/SQQ-89(V) Surface Ship Antisubmarine Warfare Combat System

The Navy introduced the AN/SQQ-89(V) Surface Ship Antisubmarine Warfare (ASW) Combat System for DMI study. The AN/SQQ-89(V) provides target detection (bearing and range), tracking and classification, performs target motion analysis, and controls setting of own ship's antisubmarine warfare information with the ship's combat direction system. Processed acoustic information is displayed to multiple sonar operators. AN/SQQ-89(V) discrete subsystems and equipment were assigned to nine individual DMI studies. Five DMI studies were completed in fiscal year 2000, and the remaining four subsystem studies were completed during fiscal year 2001:

AN/SQQ-89(V)-T( ) On-Board Trainer (91-0048-06)

The AN/SQQ-89(V)-T( ) On-Board Trainer (OBT) is an integrated shipboard training system that supports sensor operators, undersea warfare (USW) subteam, and USW team training on ships equipped with the AN/SQQ-89(V) Surface ASW Combat System and Light Airborne Multi-Purpose System (LAMPS) Mk III. The OBT supports on-board training (in port and at sea) by scenario generation and stimulation of AN/SQQ-89(V) acoustic sensors, the AN/SLQ-32A(V) Electronic Support Measures, and AN/ALQ-142 Electronic Warfare System. It also supports LAMPS Mk III USW training for the shipboard team (with simulated helicopter) and for the ship/air team with a helicopter on deck or in the air. In addition, the OBT supports multi-ship, USW, shiptop, and rooftop training capabilities for any platform (ship and/or aircraft) capable of receiving OBT radio frequency transmissions. The OBT provides the capability to maintain shipboard USW mission effectiveness by enabling USW/combat system personnel to conduct team proficiency training using actual onboard USW combat system elements. On later versions of the AN/SQQ-89(V), the OBT will be replaced by a commercial off-the-shelf configuration. The Navy is the only user of the AN/SQQ-89(V)-T( ) OBT and plans to procure 170 systems. As a result of a summary DMI study, JDMAG recommended the AN/SQQ-89(V)-T( ) OBT be assigned to the Navy for depot repair support by commercial sources, with two components also supported by the Naval Undersea Warfare Center Division, Keyport, WA. The joint Service decision was announced 11 December 2000.

OK-410(V)1/SQR-19 Towed Array Handling and Stowage Group (91-0048-07)

The OK-410(V)1/SQR-19 Towed Array Handling and Handling Group consists of a hydraulic winch and drum assembly used to deploy and retrieve the towed array, and a control station containing electrical and electronic circuitry for operation of the winch. The Navy is the only user of the OK-410(V)1/SQR-19 and plans to procure 170 systems. A summary DMI study resulted in a recommendation to assign the OK-410(V)1/SQR-19 Towed Array Handling and Stowage Group to the Navy for depot repair support by commercial sources, and additionally 12 reparable items by the Naval Undersea Warfare Center Division, Keyport, WA. The joint Service decision was announced 3 January 2001.

AN/SQR-19 Sonar Receiving Set (91-0048-08)

The AN/SQR-19 Sonar Receiving Set is a passive towed-array system, which provides the ability to detect, classify, and track a large number of submarine contacts at long ranges. It provides significant improvements in passive detection and localization, searching throughout 360 degrees at tactical ship speeds. Processing of complex data is performed by the largest computer program assembly ever developed for surface ship anti-submarine warfare. Navy is the only user of the AN/SQR-19 and plans to procure 170 systems. A summary DMI study recommended the AN/SQR-19 Sonar Receiving Set be assigned to the Navy for depot support by commercial sources, and additionally five reparable items by the Naval Surface Warfare Center Crane Division, Crane, IN, and the Naval Undersea Warfare Center Division, Keyport, WA. The joint Service decision was announced 31 January 2001.

Signal Conditioner Receiver (101) (91-0048-09)

The Signal Conditioner Receiver (101) is an assemblage of electrical and electronic components that function to process input data within the AN/SQQ-89(V) Surface Ship Antisubmarine Warfare Combat System. The Signal Conditioner Receiver (101) is associated with the Towed Array Segment receiver inputs. It receives the multiplexed, raw acoustic data from the single line towed array trailing behind the ship. The data is first demultiplexed and the acoustic information and non-acoustic data is separated. The acoustic data then goes through an initial beam forming and complex filtering circuitry and is then interpolated and sent to acoustic spectrum analyzers. Non-acoustic data is processed and provided to the system control computers to start the acoustic target localization for a possible fire control solution. The Navy is the only user of the Signal Conditioner Receiver (101) and plans to procure 170 units. JDMAG conducted a summary DMI study recommending the Signal Conditioner Receiver (101) be assigned to the Navy for depot support by commercial sources or by the Naval Undersea Warfare

Center (NUWC) Division, Keyport, WA. Additionally, five reparable items were recommended for assignment to organic support by the NUWC Keyport. The joint Service decision was announced 31 January 2001.

OM-83 (V)/U Satellite Communications Modem (92-0061)

The Army introduced the OM-83(V)/U Satellite Communications Modem for DMI study. Subsequently, the OM-83(V)/U program was cancelled and the Army requested the DMI study be terminated. The DMI study was terminated 9 July 2001.

AN/GSM-6B Insulation Breakdown Test Set (94-0029)

The Army introduced the AN/GSM-6B Insulation Breakdown Test Set for DMI study. The Army procured and fielded a total of 130 test sets and will be the only user. The AN/GSM-6B is utilized to check the integrity and quality of electrical insulation. The insulation properties of motors, cables, insulators and transformers can be evaluated by this test instrument. A summary DMI study resulted in a joint Service decision assigning the AN/GSM-6B Insulation Breakdown Test Set to the Army for depot maintenance by the Tobyhanna Army Depot, Tobyhanna, PA. The joint Service decision was announced 12 April 2001.

M1A2 Tank Navigation Computer (94-0032-05)

The Army introduced the M1A2 Tank Navigation Computer, also known as the Position/Navigation (POS/NAV) unit for DMI study. The Army procured 1,150 computers for use on the M1A2 Tank and will be the only user. The POS/NAV unit is a new mission item that provides data indicating position and heading of the tank, and hull roll and pitch angles for dynamic cant. The computer contains no depot repairable components. A summary DMI study resulted in a joint Service decision assigning the POS/NAV unit to the Army for depot maintenance support by a commercial source. The joint Service decision was announced 28 November 2000.

AN/KAS-1A Chemical Warfare Directional Detector (96-0008)

The Navy introduced the AN/KAS-1A Chemical Warfare Directional Detector (CWDD) for DMI study. The Navy is the only user of the AN/KAS-1A with an inventory of 619 systems. The AN/KAS-1A CWDD is used by the Navy on all surface ships for standoff detection and identification of chemical nerve agent clouds. The passive infrared (IR) imaging sensor uses spectral filters to detect IR radiation emitted by nerve agents and identify chemical agent attacks against battle group units, assault units proceeding ashore and assault forces in the vicinity of the landing area. The AN/KAS-1A operator can detect and obtain relative bearing to prominent land features or structures, and has the capability of detecting small objects floating on the water surface. The AN/KAS-1A also has the capability to send the sensor's video detections to various

locations on the ship, and receive video simulations for operator training. A summary DMI study resulted in assignment of the AN/KAS-1A CWDD to the Naval Surface Warfare Center, Crane Division, Crane, IN, except for eight depot repairable components with previous assignments or existing interservice relationships. The joint Service decision was announced 2 May 2001.

AN/UYK-108A Submarine Message Buffer (96-0014)

The Navy introduced the AN/UYK-108A Submarine Message Buffer for DMI study. The Navy has procured a total of 64 units and will be the only user. The program integrates a commercial personal computer into the submarine radio room automated internal message storage, generation, and processing system. A summary DMI study resulted in a joint Service decision assigning the AN/UYK-108A Submarine Message Buffer to the Navy for depot support at the Space and Naval Warfare Systems Center, Charleston, SC. The joint Service decision was announced on 5 February 2001.

Gridcase 1537E Laptop Computer (97-0005)

The Army introduced the Gridcase 1537E Laptop Computer for DMI study. Army, Navy, Air Force and Marine Corps use the laptop computer as a Universal Terminal Emulator and it will replace the AN/URC-74 teletypewriters used in the Digital Communications Satellite Subsystem. The Army has procured 360 Gridcase 1537E computers and Navy has a total of eight units. A summary DMI study resulted in a recommendation assigning Army, Air Force and Marine Corps Gridcase 1537E Laptop Computer workloads to the Army for depot maintenance support at Tobyhanna Army Depot, Tobyhanna, PA, and that the Navy continues to support the computer by a commercial source. Though interservicing did occur for the Air Force and Marine Corps, no new cost avoidance resulted due to the existing credit exchange relationships in place with the Army. The joint Service decision was announced 30 April 2001.

AN/MSQ-124 Air Defense Communications Platform (97-0021)

The Marine Corps introduced the AN/MSQ-124 Air Defense Communications Platform for DMI study. The Marine Corps is the only AN/MSQ-124 user however, some system components are used by other services on other systems. A total of 11 AN/MSQ-124 systems are planned for inventory. The AN/MSQ-124 provides the Marine Corps aviation combat element commander with a transportable, computer-supported facility from which air breathing and tactical ballistic missile threat data can be relayed to air defense fire units. A summary DMI study resulted in assignment of the AN/MSQ-124 to the Marine Corps Logistics Base Albany, GA except for 11 depot repairable components with existing sources of repair or previous assignments. The joint Service decision was announced 20 September 2001.

AN/USQ-140(V) Multifunctional Information Distribution System Low Volume Terminals (98-0011)

The Navy introduced the Multifunctional Information Distribution System (MIDS) Low Volume Terminals (LVT) for DMI review. It is a digital information system that makes secure jam-resistant communication, positive identification, exchange of tactical information, and relative geodetic grid navigation possible. The MIDS LVT is designed to perform the same functions as Class 2 Joint Tactical Information Distribution System terminals, but contains an embedded communications security device instead of an external plug-in secure data unit. The Army, Navy and Air Force are users of the MIDS LVT and plan to procure a total of 2,434. A summary DMI study resulted in the assignment of the MIDS LVT to the Navy for support by a commercial source. The joint Service decision was announced 3 November 2000.

AN/WRR-12 Submarine LF/VLF VME Bus Receiver (98-0012)

The Navy introduced the AN/WRR-12 Submarine LF/VLF VME Bus Receiver for DMI study. The Navy is the only user and plans to procure a total of 146 receivers. The AN/WRR-12 is an open systems architecture consisting of commercial-off-the-shelf, non-developmental items, and custom components. The AN/WRR-12 replaces the current Navy low frequency/very low frequency (LF/VLF) receive system which resides on the TRIDENT class submarines, submarine tenders, and LF/VLF shore stations as it is integrated in the Submarine Communications Support System (SCSS). The AN/WRR-12 will be an integral part of the SCSS architecture and a component of the Fixed Submarine Broadcast Site, which provide command, control, communications computers and intelligence for United States Navy submarines, including the dissemination of emergency action messages as part of the Strategic Connectivity System. A summary DMI study resulted in assignment of the AN/WRR-12 to the Space and Naval Warfare Systems Center, San Diego, CA. The joint Service decision was announced 31 October 2000.

AN/ASN-173 Electronic Flight Instrumentation System (98-0021)

The Navy introduced the AN/ASN-173 Electronic Flight Instrumentation System for DMI study. The system implements a new attitude reference system and adds instrument landing system (ILS) to the EA-6B aircraft. The ILS will give the EA-6B the capability to land at commercial airports under adverse weather conditions. The AN/ASN-173 primarily consists of commercial-off-the-shelf (COTS) equipment and those items required for interface/integration of the COTS equipment into the EA-6B. The Navy is the only user and plans to procure a total of 125 AN/ASN-173 systems for the EA-6B aircraft. A summary DMI study resulted in the assignment of the AN/ASN-173 to the Naval Air Depot, Jacksonville, FL, and some components to be supported commercially. The joint Service decision was announced 15 February 2001.

AN/ASN-174 Global Positioning System (98-0022)

The Navy introduced the AN/ASN-174 Global Positioning System (GPS) for DMI study. The AN/ASN-174 consists of a Miniaturized Airborne GPS Receiver (MAGR) and associated equipment which interfaces with the AN/ASN-173 Electronic Flight Instrumentation System and will provide GPS data to flight instruments as a means to emulate tactical air navigation (TACAN) functions. The Navy is the only user and plans to procure a total of 125 AN/ASN-174 systems for the EA-6B aircraft. A summary DMI study resulted in the assignment of AN/ASN-174 to the Naval Air Depot, Jacksonville FL, except for the MAGR, which was previously assigned and currently supported at Tobyhanna Army Depot, Tobyhanna, PA. The joint Service decision was announced 30 April 2001.

AN/TTC-56(V)1 Automatic Central Office Telephone (99-0002)

The Army introduced the AN/TTC-56(V)1 Automatic Central Office Telephone for DMI study. The AN/TTC-56(V)1 will provide secure voice and packet-switch capability and control in a deployed, tactical multi-channel switched communications network. A total of 17 systems will be procured and the Army will be the only user. Depot maintenance for standard items and common components associated with other communications systems will be provided by established sources. All non-standard items will be repaired by contractor operated regional repair centers. A summary DMI study resulted in a joint Service decision assigning the AN/TTC-56(V)1 to the Army for depot maintenance support to be provided by a commercial source and organically at Tobyhanna Army Depot, Tobyhanna, PA. The joint Service decision was announced 8 January 2001.

Versatile Exercise Mine System (99-0003)

The Navy introduced the Versatile Mine Exercise System (VEMS) for DMI restudy. The VEMS was previously assigned under study number 86-0036 to Naval Mine Warfare Engineering Activity (NMWEA), Yorktown, VA. NMWEA Yorktown was closed by Base Closure and Realignment Commission (BRAC) 1995 decision. The VEMS is used for training to assess the effectiveness of mine countermeasures equipment and tactics. The complete VEMS consists of the Versatile Exercise Mine (VEM) Mk 74 Mod 1, Overside Body Handling System (OSBHS) Mk 9 Mod 0, Exercise Support System (ESS) Mk 7 Mod 0 and Depot Automatic Test Equipment (DATE). The VEM Mk 74 Mod 1 is programmable to simulate any known underwater bottom mine. The OSBHS Mk 9 Mod 0 consists of hydraulic handling equipment and an Overside Body (OSB) with transducer to form a single transportable package that may be used to deploy the OSB and tow it at speeds up to 10 knots. The DATE is a computerized system consisting of various modular computers and electronic components designed to test the VEM prior to deployment. The Navy is the only user of the VEMS with an inventory of 150 VEM, 11 OSB, 20 ESS, and 6 DATE sub-systems. A summary DMI study resulted in assignment of the VEMS to the Naval Surface Warfare Center, Dahlgren Division, Coastal Systems Station, Panama City, FL. The joint Service decision was announced 14 March 2001.

Next Generation Small Loader (99-0005)

The Air Force introduced the Next Generation Small Loader (NGSL) for DMI study. The NGSL is a heavy-duty vehicle capable of transporting, elevating, loading, and unloading cargo up to a maximum load of 25,000 pounds. The Air Force is the only user of the NGSL and will procure 264 loaders. A summary DMI study recommended depot maintenance assignment to a commercial source. The joint Service decision was announced 29 August 2001.

AN/APM-421 Identification Friend-or-Foe Test Set (00-0001)

The Army introduced the AN/APM-421 Identification Friend-or-Foe (IFF) Test Set which is used in conjunction with the AN/APM-305A test set for bench test of the AN/APX-72 and AN/APX-100 IFF transponders. The Army has 56 test sets for aviation intermediate maintenance. The Navy has 94. Naval Air Depot (NADEP) Cherry Point, NC, originally repaired the Army AN/APM-421 test sets on Depot Maintenance Interservice Support Agreement number AIRCPT95-13AACL. Due to a shortage of these test sets, the Army established a depot repair capability at Tobyhanna Army Depot (TYAD), Tobyhanna, PA, and stated TYAD had reduced depot repair costs from $7,100 to $5,000 per unit and depot turnaround time from 18 months to 45 days with no additional capital investment. A summary DMI study resulted in JDMAG recommending the assignment of the AN/APM-421 depot maintenance to NADEP North Island, CA, NADEP Cherry Point, and commercial sources for the Navy workload and to TYAD for the Army workload. The joint Service decision was announced 30 March 2001.

AN/APM-424(V)2 Identification Friend-or-Foe Test Set (00-0002)

The Army introduced the AN/APM-424(V)2 Identification Friend-or-Foe (IFF) Test Set for DMI study. The test set is a microprocessor controlled, handheld, all weather test set used for pre-flight testing of AN/APX-72 and AN/APX-100 IFF transponders installed on various aircraft. It primarily provides a go/no-go indication that the IFF system has the proper code loaded and is operational. The Army, Navy and Air Force use the AN/APM-424(V)2. The Army has 281, the Navy has 370, and the Air Force has 918 test sets. San Antonio Air Logistics Center (SA-ALC), Kelly AFB, TX, originally repaired the AN/APM-424(V)2 test sets by Depot Maintenance Interservice Support Agreement. Due to a shortage of these test sets precipitated by the closing of SA-ALC, the Army established a depot repair capability at Tobyhanna Army Depot (TYAD), Tobyhanna, PA, and stated TYAD had reduced depot repair costs from $13,000 to $10,000 per unit and depot turnaround time to 60 days with no additional capital investment. A summary DMI study resulted in JDMAG recommending the assignment of the AN/APM-424(V)2 depot maintenance to Naval Air Depot (NADEP) Cherry Point, NC, NADEP North Island, CA and to commercial sources for the Navy workload; Warner Robins Air Logistics Center, Robins AFB, GA, for Air Force workload; and Tobyhanna for Army workload. The joint Service decision was announced 9 May 2001.

Minimum Essential Emergency Communications Network

The Air Force introduced the consolidated Minimum Essential Emergency Communications Network (MEECN) for DMI study. The MEECN is a joint Service communications system that provides a secure, jam-resistant link between the National Command Authority and strategic nuclear forces. The MEECN subsystems were assigned to three studies. The following two studies were completed during fiscal year 2001:

Defense Improved Emergency Message Automatic Transmission System Replacement Command and Control Terminal (00-0004-01)

The Defense Improved Emergency Message Automatic Transmission System (IEMATS) Replacement Command and Control Terminal (DIRECT) is a commercial-off-the-shelf based hardware and software computer system. DIRECT allows an operator to generate, encode, release, and retransmit Emergency Action Messages (EAM), Emergency Action Support Messages (EASM), and Non-Emergency Action Messages (non-EAM). It also provides its operators with the capability to receive, correct, decode, acknowledge and relay messages received at the command center. DIRECT provides capability for two or more person review of all messages and enforces two-person release of all messages. The existing communications systems provide for the transmission of EAMs, EASMs, non-EAMs, acknowledgements, and voice preambles between command centers and nuclear forces. Air Force is the only user. Initially, DIRECT equipment will be deployed at seven command centers and a software support facility. DIRECT interfaces with communications systems located at each command center. DIRECT is not a joint program, however, some of the command centers where the system is installed are under the control of the Army and Navy, as well as the Air Force. Air Force plans for a total procurement of seven systems. A summary DMI study resulted in a recommendation assigning the MEECN DIRECT to the Air Force for depot maintenance support by a commercial repair source. The joint Service decision was announced 9 July 2001.

AN/ARR-88(V) Modified Miniature Receive Terminal (00-0004-03)

The AN/ARR-88(V) Modified Miniature Receive Terminal (MMRT) is a radio receiving set that provides an enhanced secure, anti-jam Very Low Frequency (VLF)/Low Frequency (LF) receive capability aboard aircraft. The terminal will allow receipt of secure Emergency Action Messages from the National Command Authority. The AN/ARR-88(V) MMRT is a modification of the existing AN/ARR-85(V) Miniature Receive Terminal. Among other enhancements, the AN/ARR-88(V) MMRT can operate in a high data rate mode. As installed in host platforms, it will automatically receive, amplify, demodulate, decrypt, and process secure and non-secure messages propagated at VLF/LF frequencies (14-60 kilohertz) originating from the National Command Authority, and the United States Strategic Command during benign and stressed conditions (jammed, nuclear, or both). This system has an expected/planned life of 15 years. Air Force will

employ the AN/ARR-88(V) MMRT aboard the E-4B Aircraft National Airborne Operations Center, and Navy use is the E-6B Aircraft World Wide Military Command and Control System Worldwide Airborne Resources. The MMRT is a common configuration between the E-4B and E-6B. Air Force plans for a procurement of 12 terminals, and Navy plans for 50 terminals. A summary DMI study recommended assignment of the AN/ARR-88(V) MMRT depot maintenance workloads for the Air Force and Navy be assigned to the Air Force at Warner Robins Air Logistics Center, Robins AFB, GA, except for the KGV-61A Encryption-Decryption Equipment which was recommended for assignment to the Air Force at Air Force Cryptologic Systems Group, Lackland AFB, TX. This recommendation resulted in an interservicing relationship between the Navy and Air Force and resulted in a potential cost avoidance of $8,925,000 for the Navy. The joint Service decision was announced 29 August 2001.

MK 13 Mod 0 Improved Fresnel Lens Optical Landing System (00-0005)

The Navy introduced the MK 13 Mod 0 Improved Fresnel Lens Optical Landing System (IFLOLS) for a DMI study. The Navy is the only user of the MK 13 Mod 0 IFLOLS and plans to acquire 13 systems for use on aircraft carriers. The MK 13 Mod 0 IFOLS is a visual landing aid system that displays glide path and trend information to a fixed wing pilot approaching the aircraft carrier flight deck. The IFLOLS is the primary visual landing aid on board aircraft carriers. The system presents a display that is visible at a range of 1.0 nautical mile. The pilot observes a virtual image that appears as a yellow ball of light with respect to the fixed datum lights. The light ball is approximately $1/10^{th}$ the height of the display and appears to move up or down in the display depending on the vertical motion of the aircraft. The pilot positions his aircraft so that the light ball is aligned with the reference datum bars. A summary DMI study resulted in assignment of the MK 13 Mod 0 IFLOLS to the Naval Air Depot, North Island, CA. The joint Service decision was announced 30 April 2001.

AN/ASH-37(V) Structural Data Recording Set (00-0012)

Introduced by the Navy, the AN/ASH-37(V) Structural Data Recording Set (SDRS) tracks and records individual aircraft structural load data to determine fatigue life expended. It senses, collects, processes and stores accelerations, control positions, airframe loads and other data in support of the aircraft inspection and overhaul intervals. Used only by the Navy, the AN/ASH-37(V) is used on the C-2A, C-130, E-2C, F-14A, S-3, P-3, AH-1W and EA-6B aircraft. The Navy plans to procure 882 Sets. JDMAG conducted a summary DMI study and recommended the AN/ASH-37(V) SDRS be assigned to a commercial source for accomplishment of depot maintenance. The joint Service decision was announced 31 January 2001.

AN/MPN-25 Radar Set (01-0004)

The Air Force introduced the AN/MPN-25 Radar Set for DMI review. The AN/MPN-25 functions as a mobile radar set for precision approach during aircraft landing operations. The AN/MPN-25 is a compact Airport Surveillance Radar/Precision Approach Radar system designed to control the immediate area around an air base. It is the only system of its type able to change runways to any one of six preset touchdown points in less than one minute. An X-band transmit/receive module replaces the single transmitter with a fail-safe distributed active array. The commercial version of the AN/MPN-25 is the GCA-2000 family of radars used at civilian airports. Air Force is the sole user of the Radar Set and plans to procure three systems. A summary DMI study resulted in a recommendation that the AN/MPN-25 Radar Set be assigned to the Air Force for depot maintenance support by a commercial source. The joint Service decision was announced 12 March 2001.

AN/USM-670 Joint Service Electronic Combat System Tester (01-0005)

The AN/USM-670 Joint Service Electronic Combat System Tester (JSECST) was introduced by the Air Force for DMI review. Air Force and Navy use the AN/USM-670 for testing Electronic Combat (EC) systems on multiple aircraft such as the F-15C/E, F-16, A-10, and F-18. The Air Force plans to procure 121 testers, and the Navy plans to procure 185 testers. The JSECST provides a portable, compact, all environment flight line reprogrammable unit for end-to-end test of installed systems in Air Force and Navy aircraft. The JSECST will be used to verify EC systems go/no-go status and provide malfunction diagnosis at time of test. Associated antennas, transmission lines, radomes, cockpit displays, controls and EC suite communication buses will be tested. The JSECST will replace the AN/USM-406C/D, augment the AN/USM-482, and fill a void in organizational level testing that exists in the Air Force. A summary DMI study recommended that Air Force and Navy AN/USM-670 JSECST workloads be assigned to the Air Force for depot maintenance support by a commercial source. The joint Service decision was announced 2 August 2001.

F-15E Digital Map System (01-0006)

Air Force introduced the F-15E Digital Map System for DMI review. The F-15E Digital Map System is a form, fit, and function line replaceable unit replacement for the F-15E Remote Map Reader. It provides a moving video map to the aircrew in the cockpit display system. The Digital Map System consists of a 100-megabyte mission cartridge, and a 500-megabyte theater cartridge that installs into its digital map processor. Both cartridges are digitally loaded with maps, imagery, and elevation data by the Air Force mission support system. Air Force is the only user of the F-15E Digital Map System, and plans to procure 235 systems. A summary DMI study recommended the depot source of repair for the F-15E Digital Map System be assigned to the Warner Robins Air Logistics Center, Robins AFB, GA. The joint Service decision was announced 29 August 2001.

B-52H Battery Charger (01-0007)

Introduced by the Air Force for DMI review, the B-52H Battery Charger is used to charge a high reliability, maintenance-free, sealed, nickel-cadmium battery. Air Force is the only user of the battery charger. It is used on the B-52H Stratofortress Aircraft, and the Air Force plans to procure a total of 201 chargers. JDMAG conducted a summary DMI study that recommended the B-52H Battery Charger be assigned to the Air Force for depot maintenance support by a commercial repair source. The joint Service decision was announced 23 April 2001.

M31 Expeditionary Arresting Gear System (01-0013)

The Navy introduced the M31 Expeditionary Arresting Gear System for DMI study. The M31 Expeditionary Arresting Gear System provides an expeditionary arrestment capability for all US Marine Corps and Navy tailhook-equipped aircraft. Each M31 system consists of two mobile arresting gear platforms and associated equipment. The primary function of the M31 is the arrestment of aircraft in support of air operation in the theatre of conflict. The Marine Corps is the only user of the M31 Expeditionary Arresting Gear System with an inventory of 28 systems. It will be employed at Marine Corps expeditionary airfields. The Naval Air Systems Command, as the managing command, determined the M31 does not fit current core methodology for components. The Navy is currently planning to use a standing maintenance contract, which would be a part of an overall performance based logistics arrangement. The study resulted in a joint Service decision assigning the M31 Expeditionary Arresting Gear System to the Navy for depot maintenance support by a commercial source. The joint Service decision was announced 29 August 2001.

1995 Base Closure and Realignment Commission and Defense Depot Maintenance Council Workload Reassignments

The 1995 Base Closure and Realignment Commission and subsequent Defense Depot Maintenance Council decisions reassigned all Ground Communications-Electronics from Sacramento Air Logistics Center, McClellan AFB, CA, to Tobyhanna Army Depot, Tobyhanna, PA. The following is a list of those DMI studies completed in fiscal year 2001 to record the reassignments:

DMI Study #	Type Designator	Nomenclature	Service Users	Previous Study #
00B053	AN/TMQ-35	Weather Terminal Set	F	None
00B054	AN/TPS-75	Radar Set	F	None
01B001	AN/ARC-208(V)	MILSTAR Terminals	F,N	84-0052
01B002	AN/FRC-181(V)	MILSTAR Terminals	F,N	84-0052
01B003	AN/GRR-23(V)	Airport Radio Receiver	A,F,N	Ad Hoc 2-0-5
01B004	AN/PRC-113(V)	Portable Radio	F,M,N	82-0010
01B005	AN/UGC-141	Fixed Comm Teletype	A,F,N	82-0009
01B006	AN/PRC-90	Radio Set	A,F,N	83-0001
01B007	AN/VVS-2	Night Vision Device	A	82-0034
01B008	AN/VRC-83(V)	Vehicle Radio	A,F,M,N	82-0010
01B009	AN/TRC-176(V)	Ground Transportable Radio	F	82-0010
01B010	AN/TPX-54	IFF Interrogator	F	None
01B011	AN/GRC-217	Radio Set	F	None
01B012	AN/GRC-206(V)	Ground Radio	A,F	82-0010

The AN/GRC-217(V) Radio Set was inadvertently included in study 00B009 as a subsystem of the AN/URC-117 and reassigned to the Tobyhanna Army Depot, Tobyhanna, PA. Therefore, DMI study 01B011 was terminated due to the duplication.